

What is claimed is:

1. An image forming device comprising:

an image carrying member that carries a developer image;

5 a transfer member that transfers the developer image from the image carrying member onto a recording medium;

a bias applying member that applies a transfer bias to the transfer member;

10 a transport member that transports the recording medium;

an input member through which a width and a type of the recording medium are input; and

15 a transport speed setting member that sets a transport speed at which the transport member transports the recording medium based on the width and the type of the recording medium inputted through the input member.

2. The image forming device according to claim 1, wherein the transfer member is a contact-type transfer member that transfers the developer image to the recording medium while transporting the recording medium through its own operation, the transfer member serving as the transport member.

25 3. The image forming device according to claim 2, further comprising a measuring member that measures electrical property of the transfer member before the

transfer member performs the transfer, wherein the transport speed setting member sets the transport speed based further on the electrical property measured by the measuring member.

4. The image forming device according to claim 3,
5 wherein the electrical property is a voltage generated in
the transfer member when a specific electric current is
applied to the transfer member.

5. The image forming device according to claim 3,
wherein the electrical property is an electric current
10 generated in the transfer member when a predetermined
voltage is applied to the transfer member.

6. The image forming device according to claim 3,
wherein the electrical property is an impedance of the
transfer member.

15 7. The image forming device according to claim 3,
further comprising a transfer bias setting member that sets
the transfer bias to be applied to the transfer member based
on the electrical property measured by the measuring member.

8. The image forming device according to claim 7,
20 wherein the electrical property is a voltage generated in
the transfer member when a predetermined electric current is
applied to the transfer member, and the transfer bias
setting member sets one of electric current value and
voltage value of the transfer bias based on the generated
25 voltage.

9. The image forming device according to claim 7,
wherein the electrical property is an electric current
generated in the transfer member when a predetermined
voltage is applied to the transfer member, and the transfer
5 bias setting member sets one of electric current value and
voltage value of the transfer bias based on the generated
electric current.

10. The image forming device according to claim 7,
wherein the electrical property is an impedance of the
10 transfer member, and the transfer bias setting member sets
one of electric current value and voltage value of the
transfer bias based on the impedance of the transfer member.

11. The image forming device according to claim 7,
wherein the bias applying member applies the transfer bias,
15 which is set by the transfer bias setting member, to the
transfer member if the transfer bias is equal to or less
than a predetermined value when the transport speed is fixed
to a predetermined speed, and

the transfer member transports the recording medium at
20 a speed slower than the predetermined speed and the bias
applying member applies the transfer bias having the
predetermined value if the transfer bias set by the transfer
bias setting member exceeds the predetermined value when the
transport speed is fixed to the predetermined speed.

25 12. The image forming device according to claim 7,

wherein the transfer bias setting member sets the transfer bias larger when the electrical property requires a larger transfer bias and the bias applying member applies the transfer bias set by the transfer bias setting member to the transfer member while the transfer member transports the recording medium at a predetermined transport speed, provided that the magnitude of the transfer bias set by the transfer bias setting member is not greater than a predetermined value when the transport speed is maintained at the predetermined transport speed; and

the bias applying member applies the transfer bias having the predetermined value to the transfer member, the transport speed setting member sets the transport speed to a speed slower than the predetermined transport speed, and the transfer member transports the recording medium at the transport speed set by the transport speed setting member, provided that the electrical property requires a transfer bias that exceeds the predetermined value when the transport speed is maintained at the predetermined speed.

13. The image forming device according to claim 1, wherein the type of the recording medium is a thickness of the recording medium.

14. An image forming device comprising:
an image carrying member that carries a developer
image;

a transfer member that transfers the developer image from the image carrying member onto a recording medium, the transfer member being a contact-type transfer member that transfers the developer image while transporting the
5 recording medium through its own operation;

a bias applying member that applies a transfer bias to the transfer member;

an input member through which characteristics of the recording medium are input;

10 a measuring member that measures electrical property of the transfer member before the transfer member performs the transfer; and

15 a transport speed setting member that sets a transport speed at which the transfer member transports the recording medium based on the properties of the recording medium inputted through the input member and on the electrical property of the transfer member measured by the measuring member.

15. The image forming device according to claim 14,
20 wherein the electrical property is a voltage generated in the transfer member when a specific electric current is applied to the transfer member.

16. The image forming device according to claim 14,
wherein the electrical property is an electric current
25 generated in the transfer member when a predetermined

voltage is applied to the transfer member.

17. The image forming device according to claim 14,
wherein the electrical property is an impedance of the
transfer member.

5 18. The image forming device according to claim 14,
further comprising a transfer bias setting member that sets
the transfer bias to be applied to the transfer member based
on the electrical property measured by the measuring member.

10 19. The image forming device according to claim 18,
wherein the electrical property is a voltage generated in
the transfer member when a predetermined electric current is
applied to the transfer member, and the transfer bias
setting member sets one of electric current value and
voltage value of the transfer bias based on the generated
15 voltage.

20 20. The image forming device according to claim 18,
wherein the electrical property is an electric current
generated in the transfer member when a predetermined
voltage is applied to the transfer member, and the transfer
bias setting member sets one of electric current value and
voltage value of the transfer bias based on the generated
electric current.

25 21. The image forming device according to claim 18,
wherein the electrical property is an impedance of the
transfer member, and the transfer bias setting member sets

one of electric current value and voltage value of the transfer bias based on the impedance of the transfer member.

22. The image forming device according to claim 18, wherein the bias applying member applies the transfer bias, which is set by the transfer bias setting member, to the transfer member if the transfer bias is equal to or less than a predetermined value when the transport speed is fixed to a predetermined speed, and

the transfer member transports the recording medium at a speed slower than the predetermined speed and the bias applying member applies the transfer bias having the predetermined value if the transfer bias set by the transfer bias setting member exceeds the predetermined value when the transport speed is fixed to the predetermined speed.

15 23. The image forming device according to claim 18, wherein the transfer bias setting member sets the transfer bias larger when the electrical property requires a larger transfer bias and the bias applying member applies the transfer bias set by the transfer bias setting member to the transfer member while the transfer member transports the recording medium at a predetermined transport speed, provided that the magnitude of the transfer bias set by the transfer bias setting member is not greater than a predetermined value when the transport speed is maintained 20 at the predetermined transport speed; and

the bias applying member applies the transfer bias having the predetermined value to the transfer member, the transport speed setting member sets the transport speed to a speed slower than the predetermined transport speed, and the
5 transfer member transports the recording medium at the transport speed set by the transport speed setting member, provided that the electrical property requires a transfer bias that exceeds the predetermined value when the transport speed is maintained at the predetermined speed.

10